Washington State Dental Sealant and Fluoride Varnish Program Guidelines

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Community and Family Health

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Guidelines available at:
www.doh.wa.gov/cfh/OralHealth/manuals/Sealants/2002_sealant_varnish_manual.pdf

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Introduction

The 2000 Report from the U. S. Surgeon General, Oral Health in America, indicated that dental caries (tooth decay) is the most common chronic childhood disease. Caries can lead to pain and suffering that may affect eating, speaking, and attention to learning. The use of sealants and fluoride varnish can help prevent this disease and are recommended in the Report. The Washington State Smile Survey 2000 results indicate that 41% of second grade students have sealants, below the Healthy People 2010 goal of 50%. The survey also found that students from low-income, minority or immigrant/refugee families have more disease and less preventive interventions. To address these issues, the Washington State Legislature enacted Substitute Senate Bill 6020 (SSB 6020) in the 2001 session. Through this bill, low-income, rural and other at-risk populations are targeted for increased access to school-based sealant and/or fluoride varnish programs.

These guidelines are designed to assist providers in planning, implementing, and evaluating school-based programs.

SSB 6020 broadened the scope of practice for dental hygienists with endorsements and changed the supervision for dental assistants with endorsements in school-based programs. These Guidelines, together with the appropriate Washington Administrative Codes (WAC 246-814) and Revised Codes of Washington (RCW 18.29.220 and 18.32.226), provide relevant information on implementing and operating such programs. The intent is that the guidelines will also be used in training dental hygienists and assistants interested in receiving an endorsement to provide school-based sealant and/or fluoride varnish programs.

Based on the national model "Seal America", these guidelines provide a step-by-step process to develop quality programs. Assuring quality programs include a number of considerations.

- Targeting programs to those children most at risk for caries is effective and cost efficient.
- Program planning must include an assessment of capacity and secure community support as well as provide systems that will be sustained.
- A good sealant is one that sticks! Every effort has been given to provide information on how to apply high quality sealants that are retained.
- A single application of fluoride varnish will not be effective. Every effort must be made to ensure that multiple yearly applications are provided.
- Policies, procedures, and data collection are invaluable to quality programs, and are worth the time spent in documentation. A quality assurance tool is provided as an easy way to check those areas that may need attention.
- Finally, bibliographic references and a list of relevant websites are provided.

The ideas and experience of many school-based programs have contributed to these guidelines. Local Health Jurisdictions, local oral health coalitions, dentists, dental hygienists and dental assistants can use these guidelines to promote and provide preventive programs that work for children in need in Washington State.

QUALITY ASSURANCE TOOL and CHECKLIST

School-Based Sealant and/or Fluoride Varnish Program

SECTION	STEP REFERENCED	COMPLETED		COMMENTS
		YES	NO	
I. STRUCTURE				
A. Population/Community				
1. A written work plan available that defines community to be served.	**1**			
2. Populations are appropriately targeted.	**1**			
B. Infrastructure/Capacity				
1. Systems are in place to assure sustainability and community support.	**2**			
2. A community based advisory group is established.	**2**			
3. Funding is secured.	**2**			
C. Staff				
1. There is a program supervisor and an on-site coordinator.	**3**			
2. Staff wears appropriate identification on-site.	**3**			
3. Team consists of a provider and an assistant.	**3**			
4. Copy of professional license with endorsement is on file.	**3**			
5. Written personnel policies governing term of employment, working conditions, duties, benefits, and opportunities for training or advancement.	**3**			
6. Personnel guidelines, OSHA, WISHA, WACs, HIPAA regulations are followed.	**3**			
7. Policy and procedure manuals developed to govern program operations.	**3**			
8. Written agreements or contracts with dental providers are available for review by DOH.	**3**			
9. Staff is trained and training is documented.	**3**			
D. Equipment/Supplies/Facilities				
1. One fully functioning dental unit is available.	**4**			
2. Equipment is properly maintained and is in good repair.	**4**			
3. Appropriate supplies are available.	**4**			
4. Backup equipment and replacement parts are available.	**4**			
5. Facilities are appropriate for procedures.	**8**			
E. Sterilization, Disinfection and Exposure Control				

SECTION	STEP REFERENCED	COMPLETED		COMMENTS
		YES	NO	
1. Written policies and procedures for OSHA/WISHA, HIPAA, infection and exposure control are available on site.	**4**			
2. Sterilization space is isolated from treatment area.	**4**			
F. Medical Emergency and Hazard Preparedness				
1. All providers have current certification in CPR with documentation on file.	**3**			
2. Emergency procedures at schools are followed.	**7**			
G. Forms/Data/Documentation				
1. Patient records are immediately available for use. Records are kept in a secure area.	**5**			
2. Patient records include patient demographics.	**5**			
3. Other pertinent forms are attached to the patient record.	**5**			
4. Consent forms are complete, have parent/guardian signatures, and are available in all appropriate languages.	**5**			
5. A medical history is obtained on all patients.	**5**			
6. Dental records are complete; signed/dated by the assessor and provider.	**5**			
7. Referral forms are available and used appropriately	**5**			
8. Using interviews, surveys, group discussions or other methods, process and outcomes information about the prevention program is obtained from schools, communities, parents, students, and staff	**5**			
9. Data is available on program costs and patient billing.	**5**			
II. PROCESS				
A. Defining Population/Community				
1. School serves low-income, rural or other at-risk population. Selection is determined by the following:				
a) Ability of students to access dental care.	**1**			
b) HP2010 objectives targeted .	**1**			
c) Free/Reduced Lunch percentage is large or greater then average.	**1**			
d) High rate of minority, homeless, ESL or DD students.	**1**			
e) Level of community/school support and Commitment.	**1**			
2. Child selection is determined by the following parameters:				
a) Caries risk assessment appropriate for sealants and/or fluoride varnish applications.	**1**			

SECTION	STEP REFERENCED	COMPLETED		COMMENTS
		YES	NO	
b) Second and Third Grade priority (6-8 year olds) for sealants.	**1**			
c) Positive consent obtained from parent/guardian.	**1**			
d) Screened by licensed dentist or endorsed dental hygienist.	**1**			
3. Tooth selection is determined by the following parameters:				
a) First/second permanent molars for sealants.	**1**			
b) Pit and Fissure assessment.	**1**			
c) Smooth surface assessment.	**1**			
B. Infrastructure/Capacity				
1. Oral Health Coalition or Program Advisory group has been established.	**2**			
2. Services are provided in coordination with LHJ's and oral health coalitions.	**2**			
3. Services are billed appropriately.	**2**			
4. Billing records are available.	**2**			
5. Medicaid is billed fee for services or for Administrative Match.	**2**			
C. Staff Training				
1. Staff is trained in equipment operation and maintenance and safety.	**3**			
2. Staff is trained in sealant placement & evaluation and in fluoride varnish application	**3**			
3. Staff training is provided in policies, procedures, protocols, and program forms.	**3**			
4. Staff training is documented.	**3**			
5. Contractors and independent providers comply with training requirements as quality assurance mechanism.	**3**			
D. Sterilization, Disinfection and Exposure Control				
1. Instruments are appropriately sterilized	**4**			
2. All sterilizing areas are properly vented.	**4**			
3. Technique and effectiveness of sterilization are tested according to OSHA/WISHA	**4**			
4. Sterilized instruments are stored in the sterilizing bags.	**4**			
5. Disposable instruments and supplies are used where feasible.	**4**			
6. All surfaces are wiped with a suitable disinfectant.	**4**			
7. Disposable covers are used for handles, switches, headrests and trays.	**4**			
8. Contaminated disposed materials are sterilized when possible and discarded in special sealed plastic bags.	**4**			

SECTION	STEP REFERENCED	COMPLETED		COMMENTS
		YES	NO	
9. Disposable items are brought back to the Health Department or appropriate facility for disposal and are not placed in the community general trash.	**4**			
10. Hands are washed thoroughly before and after treatment or approved hand-cleaning agents are used when water is not available.	**4**			
11. Gloves, masks and eye protection are worn. Gloves are disposed of after each patient.	**4**			
12. High velocity evacuation is used.	**4**			
13. Infection and exposure control policies along with MSDS's are available on site.	**4**			
E. Medical Emergency and Hazard Preparedness				
1. Accident and injury report forms along with appropriate phone numbers are available.	**7**			
2. Staff are familiar with school emergency routines.	**7**			
3. Staff are trained in prevention of accidents with chemicals; knowledge of emergency procedures in the event of injurious exposure. All hazardous chemicals are appropriately labeled and stored.	**7**			
4. Noise	**7**			
a) Appropriate precautions are taken to reduce noise levels.	**7**			
5. Earthquake	**7**			
a) Earthquake preparedness kits are available at sites and in all vehicles.	**7**			
F. Forms/Data/Documentation				
1. Internal documentation reviewed yearly and recorded.	**9**			
a) Performance and documentation of medical/dental history	**9**			
i) A preliminary information base is developed for all patients, is up to date and covers areas listed in Step 6.	**5**			
ii) A medical history is obtained on all patients. This medical history is up to date and includes the following:	**5**			
a) All questions are answered.	**5**			
b) Possible compromising conditions are followed up and documented.	**5**			
c) Charts of patients with compromising conditions are flagged with a medical alert sign.	**5**			
d) Health histories are dated and signed by parent/guardian.	**5**			

SECTION	STEP REFERENCED	COMPLETED		COMMENTS
		YES	NO	
e) All histories are reviewed and signed by the provider.	**5**			
b) Performance and documentation of the patient assessment	**5**			
i) Oral health assessments are conducted using the Smile Survey format.	**5**			
ii) All findings are recorded and dated.	**5**			
iii) Assessment for sealant placement/fluoride varnish application conforms to Washington State Guidelines.	**1**			
iv) Oral health status and treatment needs of each student screened are reported to parent or caregiver.	**7**			
v) Assessments documented in a clearly identified portion on the patient record.	**7**			
c) Treatment planning	**7**			
i) A treatment plan based on the assessment is clearly written on the patient record.	**7**			
ii) Any field service beyond oral health assessments has informed consent.	**7**			
2. Forms and procedures conform to HIPPA and RCW requirements.	**5**			
G. Sealant Placement/Fluoride Varnish application	**8**			
1. Sealant placement is done using a four-handed approach.	**8**			
2. Curing lights function properly and are checked by radiometer at regular intervals.	**8**			
3. Sealant retention rates are 85% or higher.	**8**			
4. Sealant and/or fluoride varnish material used is noted and recorded.	**8**			
5. Sealant placement and fluoride application provided using Washington State Guidelines	**8**			
III. Program Evaluation				
A. Process Measures				
1. Oral health assessments indicate that schools targeted for sealant programs have high-risk populations.	**9**			
2. Sealant retention rate is 85% or higher.	**9**			
3. Child receives multiple yearly fluoride varnish applications	**9**			
4. Documentation evaluation complies with expected rates.	**9**			
5. Other indicators as dictated by specific program needs are documented and reviewed yearly.	**9**			
B. Access and Satisfaction				

SECTION	STEP REFERENCED	COMPLETED		COMMENTS
		YES	NO	
1. Qualitative data is collected and analyzed to measure school/community satisfaction with services.	**9**			
2. Data regarding untreated disease and treatment referrals are shared with the community.	**9**			
C. Utilization				
1. Data are reported appropriately.	**9**			
2. Indicators as dictated by specific program needs are documented and reviewed yearly.	**9**			

STEP I

ASSESS AND TARGET AT-RISK POPULATIONS

Introduction

Identifying schools with students that are low-income, rural, and/or at risk for developing tooth decay is the first and most important step in planning a school-based program. While dental caries has declined in the overall population, thousands of children in Washington State continue to experience this preventable disease. The decline in caries is not equally distributed and a small segment of children account for the majority of the disease. In addition the pattern of dental caries has changed, with 89% of children developing caries only in the pit and fissure surfaces of their permanent teeth and 11% developing caries on the smooth surfaces of the teeth.

Changes in caries patterns call for specific targeting strategies in school-based sealant and/or fluoride varnish programs so that the children with the greatest need receive sealants and/or fluoride varnish. First, define the geographic or administrative area to be served, and then select a school. Next identify which grade or grades will receive the service and select the appropriate children. Lastly, identify the specific teeth to be sealed or to receive fluoride varnish. When selecting a geographic area, the program must determine the appropriate method to target the population to whom this service is offered. A valuable reference for assessing the oral health of a community entitled "MCH Oral Health Needs Assessment" is available through the National Maternal and Child Oral Health Resource Center, Georgetown University, 2115 Wisconsin Ave. NW, Box 571272, Washington, D.C. 20057-1272. Telephone: 202-784-9771, or http://www.mchoralhealth.org.

The Washington State Sealant and Fluoride Varnish Program Guidelines address school-based programs. The following table compares the general characteristics of individual private care versus school-based programs.

School-based programs	**Private providers or clinic programs**
Non-continuous and episodic access to care. School settings will allow limited choices of providers and services.	Continuous access to care at planned recall intervals. Patient can choose from a wider range of services and providers.
Treatment monitoring is limited due to episodic care and/or multiple providers.	Monitored treatment that can be observed over many years by the same provider.
Assessment options beyond visual and tactile are less likely to be available.	Full range of assessment options available.
Treatment is less likely to be comprehensive and restorative options are frequently unavailable.	Provides a full range of comprehensive treatment options.

Parents or guardians are not usually present to provide additional dental history.	Parents or guardians can be present to provide additional dental history.

SELECT A POPULATION

Indicators to consider for the selection of populations to be served.

Low-Income

Income criteria are often considered because children from low-income families tend to have higher disease experience and receive less dental treatment.

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Schools that indicate the largest number of children participating in the Free and Reduced Fee Lunch Program are considered low-income schools. Schools with higher percentages of low-income students are more 'at risk'. The Office of Superintendent of Public Instruction publishes the data yearly. (http://ww.k12.wa.us, select "child nutrition" under OSPI Programs) Most dental programs in the state select schools according to some indicator of economic need and then offer the program to ALL students in targeted grades.

Minority or Ethnicity

Hispanic, Native American and/or English as Second Language (ESL) populations have higher caries prevalence. One of the key findings of the Washington State *Smile Survey 2000* (pages 22-23) was that children of color surveyed in Washington had more dental decay. Also, non-white children and children who spoke a language other than English at home were more likely to have dental disease.

Homeless Populations

Some schools and communities have programs to assist families that are homeless. Homeless families frequently need health care and dental care more than the general population.

Special Education

Children with special health care needs or students in special education classes are more likely to have difficulty in accessing dental care.

Access To Care

The ability of children to receive care at a private dental office or a non-profit community-based dental clinic can influence the selection of children to participate. Some programs limit sealants or fluoride varnish applications to those children who do not have a dentist.

Community Water Fluoridation

Fluoride affects the smooth surfaces of teeth more than the pits and fissures of teeth. Children living in communities with fluoridated public water supplies tend to have fewer smooth surface caries than children living in non-fluoridated areas. Also, students with high mobility rates may be less likely to have lived in areas of optimal water fluoridation long enough to influence dental caries rates.

Rural

Rural communities in Washington State tend to have fewer (or remote) dental care providers for the population base, and are less likely to have fluoridated community water supplies. In March 2002, the Bureau of the Census released new criteria for defining urban and rural areas based on the results of Census 2000. These criteria replace and update the 1990 census definitions for defining urban and rural areas.
(http://www.nal.usda.gov/ric/faqs/ruralfaq.htm)

Healthy People 2010

If oral health assessment data are available, consider selecting populations that address the Healthy People 2010 Health Objectives for the Nation.

These national objectives have been selected to direct activities toward achieving two goals:

- **Goal 1: Increase Quality and Years of Healthy Life**
  The first goal of Healthy People 2010 is to help individuals of all ages increase life expectancy and improve their quality of life.

- **Goal 2: Eliminate Health Disparities**
  The second goal of Healthy People 2010 is to eliminate health disparities among different segments of the population.

Healthy People 2010 targets include the following:

Groups of 2-4 year olds where more than 11% have had dental caries experience;
Groups of 6-8 year olds where more than 42% have had dental caries experience in their primary and permanent teeth;
Groups of adolescents (age 15) where more than 51% have dental caries experience;
Groups of young children where more than 9% have untreated dental decay in their primary teeth;
Groups of children where more than 21% of children have untreated dental decay in their primary and permanent teeth;
Groups of adolescents where more than 15% have untreated dental decay in their permanent teeth;
Groups of children age 8 and age 14 where less than 50% have received dental sealants; or
Groups of low-income children or adolescents where less than 57% have had any preventive dental service during the past year.

Resources

Programs will vary in their ability to offer sealants and/or fluoride varnish depending upon the resources available. Some programs may be able to offer sealants to all students in both second and sixth grade while others may be able to offer sealants to students from only one grade level. Multiple applications of fluoride varnish in a year needed for children at highest risk may limit how many grades may be offered the fluoride varnish program. The location of the grades within the school, caries experience of the individual children, tendency of the children in older grades not to participate, and school schedules can all influence the ability of the program to serve the maximum number of students.

SELECT INDIVIDUALS

Once the site has been selected, individuals who will receive the sealant and/or fluoride varnish must be selected.

Once the site has been selected, individuals who will receive the sealant and/or fluoride varnish must be selected. Targeting may differ for sealants and/or varnish due to the differing prevalence of dental caries patterns.

Caries Risk Assessment

Dental caries is not evenly distributed in the general population with about 20% of children experiencing approximately 60% of the dental caries. Dental caries is a multifactorial disease; therefore more than one risk factor must be present to accurately identify those at high risk for developing dental caries. "Thus far the single most consistent predictor of caries risk in children is past caries experience. In addition, there is evidence of matrilineal transmission of mutans streptococci in early childhood. Hence, the presence of caries in the mother and siblings increases risks for the child." An example of assessing for caries risk can be found in Table I-1 on the next page.

Time

"At the initial visit for new patients, if time of last caries experience cannot be determined, a person with no decayed, missing or filled surfaces would be classified as low risk. A person with past caries experience and/or one or more active lesions would be classified as moderate risk. A person with past caries experience and/or two active caries or one smooth surface lesion would be classified as high risk." (JADA Special Supplement 1995)

Caries Activity

Assessment of the level of caries activity may be accomplished through observing the present dental conditions of the primary and permanent teeth.

Table I-1. Caries Risk Assessment

Evaluate each individual to assess caries activity. Caries experience can be classified as:

Overall caries experience	**Sealants**	**Fluoride Varnish**
Targeted surface	Pits and fissures	Smooth surfaces
Eruption status	The success of sealants is directly related to the ability to maintain a dry field. Since treatment is usually noncontinous or episodic in the selected populations, it is better to seal all surfaces that can be adequately isolated.	Apply fluoride varnish to ALL erupted teeth of children with two or more risk indicators for smooth surface caries.
LOW RISK INDIVIDUALS No obvious decay/no restorations/no teeth lost due to dental caries	Sealants are recommended in at-risk populations since the prevalence of pit and fissure caries is high. Well-coalesced pit and fissure surfaces that are easily cleaned are not at risk for caries.	Fluoride varnish is recommended for children <u>with other risk indicators</u> for developing dental caries due to the low prevalence of smooth surface caries. If there were no evidence of smooth surface caries you would look for other risk factors.
MODERATE RISK INDIVIDUALS Questionable/white spots/shadows and changes in color of interproximal surfaces OR restorations are present Individuals that do not clearly fit into low or high risk are at Moderate Risk	Sealants are highly recommended for pits and fissures that have NOT been restored and the teeth are free of obvious caries. Sealants are recommended for all children since clinical research has shown that caries inadvertently sealed will NOT progress if the sealant remains intact. This would be the most cost-effective time to place sealants.	Fluoride varnish is highly recommended for smooth surfaces since clinical research has shown that caries can be remineralized with multiple applications of fluoride varnish yearly.
HIGH RISK INDIVIDUALS Obvious decay-breaks in the enamel surface, loss of tooth structure OR	A.) Dental sealants are recommended for permanent molars that do NOT have obvious decay.	Multiple applications of fluoride varnish have been associated with slowing or arrest of obvious dental caries in young children. Fluoride

observable abscess.	B.) Dental sealants are not recommended for gross carious lesions. Gross caries will not retain a sealant. Assessment of the individual child's dental resources are critical for appropriate use of interim or temporary sealant. TEMPORARY use of sealant may be considered for gross caries, when there is enough tooth structure to create a bond. Use a temporary sealant only when follow-up to dental care is not expected. A temporary sealant may slow caries progression. Parents must be notified of the limitation of the temporary sealant and encouraged to seek dental treatment for their child. All children with obvious caries must be referred to a dentist for appropriate therapeutic intervention.	varnish may also reduce the number of future INITIAL dental caries when applied multiple times yearly. Parents must be notified of the limitation of the fluoride varnish and should be encouraged to seek dental treatment for their child.

ASSESS TEETH

Population-based programs are different from individual care programs.

Techniques for assessing teeth in school-based programs depend upon the needs of the high-risk population and the resources available.

Visual assessment is an effective tool for identifying teeth in ‘at-risk’ individuals. Tooth selection includes:

Sealants The permanent teeth most likely to experience pit and fissure caries are first and second permanent molars. Most sealant programs, therefore, target these teeth. It is commonly recommended to select second graders for first permanent molars and sixth graders for sealing second permanent molars. Sealants need to be reexamined, and reapplied if necessary, at least at a yearly recall.	**Fluoride varnish** Apply fluoride varnish to all teeth of moderate or high-risk children. For children at moderate or high risk, multiple applications of fluoride varnish within a single year are recommended.

General Assessment Guidelines

- **Use a good light!**

- **Observe the tooth surface**
  Tooth surfaces need to be free of heavy plaque, food and debris. Debridement can be done with a toothbrush. Drying the tooth can greatly enhance the assessment. Use a gauze sponge or compressed air.

- **Transillumination**
  Transilllumination improves the ability of the clinician to detect caries. Since caries transmits light at a lower index level than the surrounding tooth structure, changes in tooth structure will appear as a dark shadow. Transilliumination is a non-harmful

technique that can be an adjunct during screenings to confirm the presence and extent of occusal or interproximal caries.

- **Tooth Color**

  Evaluating the tooth color will help determine the presence of tooth decay. Characteristic changes in the color and translucency of tooth structure should be observed. The first indications of carious activity are areas of etched enamel that have lost the surface gloss. As the lesion progresses over time, it accumulates stain. The progression of the lesion deeper into the surface will gradually change color of the enamel, as it becomes thinner.

  Chalky white areas, especially in the gingival third of the tooth enamel, are demineralization and may not indicate caries needing immediate restoration. These surfaces can be remineralized with fluoride treatments. Sealants can be placed over demineralized occlusal surfaces and are 100% effective in preventing dental caries as long as they remain intact.

  Grayish-white discoloration in the occlusal surface indicates that caries has developed under the enamel and into the dentin. When this type of coloration is present, it indicates that the caries has spread significantly and the child should be referred for treatment

Explorers

Traditionally, during a dental examination, a thin sharp explorer has been used to provide tactile information. The sharp tip of an explorer, however, can produce irreversible traumatic defects by fracturing and breaking down the intact surface layer of enamel. As the explorer is forced into the demineralized zones, the intact surface layer is essentially destroyed and cariogenic bacteria could be forced into the depth of the lesion. This effect may eliminate the opportunity for arresting or reversing the carious process.

Many clinicians question whether the explorer is a reliable tactile tool for diagnostic accuracy during caries detection. Explorers have been shown to produce many ‘false positives’ since the stickiness detected by the explorer can merely result from the narrow morphology of the fissure or from the pressure exerted by the explorer against the tooth surface. A “sticky fissure’ in itself does not warrant the need for immediate restoration. However, explorers can be used to slide over the surfaces to determine if the teeth have been previously sealed or restored.

STEP 2

ESTABLISH COMMUNITY PARTNERSHIPS

Successful dental sealant and/or fluoride varnish programs have several common elements:

1) **Small local beginnings,**
2) **An involved advisory group in the planning and learning process,**
3) **Links to a network of leaders and agencies with a commitment to improve the health of children, and**
4) **Implementation accomplished in collaboration with the local Public Health Department (Local Health Jurisdictions or LHJ's) and the local oral health coalition.**

BUILD SUPPORT FOR THE PROGRAM

Begin Locally, Begin Small,
and Go Slowly

The first activity of the program administrator is to identify individuals within the community who are willing to learn about the proposed program and to help initiate it.

WAC 246-814-030 requires that school-based services be provided in "coordination with local public health jurisdictions and local oral health coalitions." Coordination requirements may vary with each LHJ. A written agreement with the LHJ is strongly recommended.

Once a connection is made, form an advisory group. Providers could choose to partner with an existing oral health coalition to serve as an advisory group. Seek members from various sectors of the community to increase the chances of maintaining a diversified yet interested membership. Advisory members bring expertise from professions, businesses, schools, and consumers. An involved advisory group better insures community support for the program. Invitations to participate on an advisory group may be extended to members of the following groups, among others:

- Oral Health Providers

The Oral Health Provider community includes dentists, dental hygienists, dental assistants, denturists, and dental laboratory technicians as well as personnel who operate oral health

programs in the state or county. Not-for-profit dental services, such as neighborhood, community, migrant, and tribal dental clinics, and for-profit dental, dental hygiene, and other oral health-related services are part of this group. Networking with various providers strengthens the program in many ways.

Schools

The School community includes superintendents, principals, teachers, counselors, librarians, school nurses, and supportive personnel who work directly for a school or school district, either public or private. Children who are recipients of the services, and their parents, are a part of this group. The school community must be an active participant in the decision-making process of the programs.

Health Professionals

Pediatricians, family physicians, nurses, nurse practitioners, naturopaths, dietitians, members of Board of Health, county commissioners, nutritionists, and hospital personnel can be vital links to the successful marketing and promotion of dental disease prevention programs. Seek to educate and involve representatives from interested and willing providers.

Businesses

Inappropriate decision-making and insufficient funding can eliminate a well-planned and valuable service to the community. Extend advisory membership invitations to business, corporate bodies, insurance carriers, labor, and philanthropic organizations. Partnerships with the business and labor community provide opportunities for education, financial support, and advocacy for the program. Businesses need healthy employees, customers, and communities.

INVOLVE ADVISORY GROUP IN PLANNING AND LEARNING

Invited advisory group members need a voice in the program-planning phase. Clarify the roles and responsibilities of each member. Establish informal rules about when to call meetings, how to conduct meetings, how to record progress, and how decisions will be made. Share the information from the local public health department regarding any expectations about offering a program in schools. Ask members to help shape, change, and critique the plan. Keep the planning focused on community needs and maintain flexibility as the program evolves and grows. Each group may have a different role to play. The following is a description of what each group may contribute. When you meet with them solicit more ideas.

Oral Health Providers

In addition to sharing information about program goals, providers will want to know what is happening in their community. If they are interested in technical information about sealant and fluoride materials, typical retention rates in school-based

programs, criteria for sealing teeth or applying varnish, quality assurance measures, portable equipment, infection control safety and efficacy of sealants and fluorides, or follow-up protocols, you will have an opportunity to provide that information. Prepare a notebook of scientific articles about effectiveness and efficacy of dental sealants and fluorides for caries prevention as the foundation for your decision to implement a program. This group can be instrumental in brainstorming ideas for recruitment of staff. They can assist in gathering professional support for the program.

- Schools

The school community must weigh the value of a dental sealant and/or fluoride varnish program against the value of time spent in the classroom or in after-school activities. If this is your initial relationship with school personnel, focus the first meeting on the benefits of dental sealants and fluoride varnish as prevention measures. Convince the audience that the program is worth the time in the school day. Emphasize the long-term value and cost-benefits of a child with healthy teeth. Help them understand the costly effects over time of surgical or reparative therapies.

Approaches to consider with school personnel:

Provide Information

Provide each school with an **information packet,** which contains the program goals and objectives. Include samples such as consent forms, scheduling forms, classroom incentive ideas, and educational material.

Gain Approval

Depending upon the district decision-making structure, a superintendent may endorse the program for an entire system or may leave the final decision about participation to each individual school principal. It is more efficient if the superintendent endorses the program for the entire system. Suggest that approach. If the superintendent is undecided, solicit assistance from your advisory group. School nurses are a useful first contact because they have direct knowledge of the decision-making hierarchy within the school. Because decisions for endorsing programs may be lengthy, consider the approval process timeline in your planning. The approval process may take a considerable amount of direct contact with local leaders, oral healthcare providers, support groups, and school personnel. Patience with persistence is essential.

Build A Relationship

Once the program is approved, determine the most appropriate way to involve the superintendent or principal in gaining acceptance for the program in each targeted school. In addition to the school principal, there may be directors of student services or special services that support the program with the school staff.

Identify Partners

Enthusiastic teachers, nurses, or parents can help gain acceptance within the schools. Volunteers within the school may be interested in assisting with the coordination of obtaining parental consents for participation in the program. Identify the enthusiastic supporters and foster their involvement.

- Health Professionals

Health professionals who work with children and their families will be interested in learning about the program. As knowledge expands about the underlying associations between oral health and general health, greater awareness of the importance of oral health will emerge. By working with the health community, the program can become another link toward prevention of dental disease and promotion of oral health and general health.

- Businesses

Dental sealants and fluoride varnish are proven dental caries prevention strategies. It is important for the business community to understand that if this disease is prevented at its earliest sign, more costly care can be avoided. Endorsements of the program by organizations such as United Way, Kiwanis, Lions Clubs, YWCA, YMCA, Soroptimists, Boy and Girl Scouts, local businesses, and from well respected members of the political, business, regulatory and philanthropic organizations may provide opportunities for funding and sharing sponsorship of the prevention program. Work with media to inform the community of the benefits of early prevention and the value of an oral health preventive program.

LINK PROGRAM TO NETWORK OF LEADERS

Once you have planned and implemented a small, locally successful program in one location, you may want to expand and provide services to another school. Keep in mind you must coordinate with the LHJ and any local oral health coalition before approaching any school. Be aware that public health departments have geographical boundaries so, although schools may be in close proximity, they may be in different LHJ's areas of responsibility. Do not assume that an agreement with one LHJ will be acceptable to another LHJ. The purpose of this requirement is to maintain coordination of preventive activities and avoid duplication. Draw on the talents of your original advisory committee for their expertise in identifying leaders in the proposed new sites. If the communities are very diverse, create another local advisory group that can commit to improving the health of children. Remember to check whether a local oral health coalition already functions in the chosen community. Each group will learn the process of planning, implementing, and evaluating programs. As community advocates for children's health emerge from your advisory groups, link with them and any organizations with which they may be associated. In this way, support and knowledge of the programs can grow quickly.

Gaining community support is an important component in the development of school-based dental sealant and/or fluoride varnish programs. Starting locally, starting small, and building collaboration and functional partnerships with oral health providers, school

personnel, health, and business communities will ensure successful programs targeted to children who need preventive services.

As part of the establishment of an infrastructure, learn about billing procedures and practices. To receive a Medicaid provider application, contact Washington State Department of Social and Health Services (DSHS) Medical Assistance Administration (MAA), Medicaid Provider Enrollment, P.O. Box 45562, Olympia, Washington 98504-5562. In Washington State both dentist and dental hygienists are assigned provider numbers and are able to bill. Fluoride varnish and dental sealants are reimbursed at rates established by the Medical Assistance Administration.

To learn about private insurance billing, contact the insurer directly.

STEP 3

DETERMINE STAFFING NEEDS AND TRAINING

The staffing of a school-based sealant and/or fluoride varnish program depends upon the size of the targeted population, the availability of dental professionals, and the extent of funding resources. Dentists, dental hygienists and dental assistants are required to coordinate with Local Health Jurisdictions (LHJs) and local oral health coalitions in providing these services.

PROFESSIONAL ROLES

Definitions in WAC 246-814-020 and WAC 246-814-030 (Adopted 10-23-2002)

WAC 246-814-020 Practices authorized. (1) **Dental hygienists.** Solely for purposes of providing services under this chapter, dental hygienists holding endorsements under this chapter may assess by determining the need for (i.e., the absence of gross carious lesions and sealants) and acceptability of dental sealant and/or fluoride varnish treatment for children in school-based programs and may apply dental sealants and fluoride varnish treatments, without the supervision of a licensed dentist. This determination does not include or involve diagnosing conditions or constitute a dental examination.

(2) **Dental assistants.** A dental assistant is currently defined by the Dental Quality Assurance Commission in WAC 246-817-510 as an unlicensed person working under the *close* supervision of a licensed dentist. Solely for purposes of this chapter, authorized dental assistants may apply dental sealants and fluoride varnish treatments to children in school-based programs under the *general* supervision of a Washington state licensed dentist, as described in this chapter.

(a) *Close supervision* requires the licensed supervising dentist to first determine the need for and acceptability of dental sealant and fluoride varnish treatments, refer the treatment and the dentist must be in the treatment facility when the treatment is provided.

(b) *General supervision* requires the licensed supervising dentist to first determine the need for and acceptability of dental sealant and fluoride varnish treatments, refer the treatment and the dentist does not have

to be in the treatment facility when the treatment is provided.

(3) Dental assistants and their supervising dentists, as well as dental hygienists shall coordinate with local public health jurisdictions and local oral health coalitions prior to providing services under this chapter, consistent with RCW 18.29.220 and 18.32.226.

WAC 246-814-030 Application process and documentation of training required to qualify for endorsement. (1) The department of health has issued endorsements to all dental hygienists holding valid licenses on or before April 19, 2001, the effective date of RCW 18.29.220.

(2) Dental hygienists licensed after April 19, 2001, must obtain an endorsement to provide services under this chapter. Applicants must meet the additional requirements in RCW 18.29.220 and must submit the following to the department:

(a) Application for endorsement;

(b) Fee;

(c) Information of having a valid Washington state dental hygiene license for reference; and

(d) Proof of the completion of training that has incorporated the Washington state department of health sealant/fluoride varnish program guidelines as described in WAC 246-814-040(3).

(3) Dental assistants employed by a Washington state licensed dentist on or before April 19, 2001, are not required to obtain an endorsement but may voluntarily do so without having to meet the additional requirements in RCW 18.32.226.

(4) Dental assistants employed by a Washington state licensed dentist for two hundred hours after April 19, 2001, must obtain an endorsement to provide services under this chapter. Applicants must meet the additional requirements in RCW 18.32.226 and must submit the following to the department:

(a) Application for endorsement;

(b) Fee;

(c) Proof of two hundred hours of employment as a dental assistant by a Washington state licensed dentist that has included theoretical and clinical training in the application of dental sealants and fluoride varnish treatments, verified by a declaration provided by the licensed dentist who provided the training; and

(d) Proof of completion of training that has incorporated the Washington state department of health

sealant/fluoride varnish program guidelines as described in WAC 246-814-040(3).

(5) Dental assistants and their supervising dentists, as well as dental hygienists should use the Washington state department of health sealant/fluoride varnish guidelines described in WAC 246-814-040 and other protocols that may be in place for the geographic region when coordinating with local public health jurisdictions. To assist the local public health jurisdictions and the practitioners in coordinating these services, a "letter of understanding" is recommended and would provide a means to address mutual concerns. It may include, but is not limited to:

(a) Data collection requirements;

(b) Delineation of responsibilities of the treatment providers and the local public health jurisdictions;

(c) Quality assurance mechanisms; and

(d) Communication with schools being served.

(6) Dental assistants and their supervising dentists, as well as dental hygienists shall coordinate with the local oral health coalitions by participating in oral health coalition meetings that may be held in the geographical region.

Typical roles and program responsibilities are summarized in the following table:

Dentist:	Dentists licensed in Washington State practice under Chapter 18.32 RCW. Dentists must screen children for school-based programs when dental assistants provide services.
Dental Hygienist:	Assessment by dental hygienists – dental hygienists may determine the need and acceptability of sealant and/or fluoride treatment for children. This term does not include or allow for diagnosis of any condition. Dental hygienists licensed on or before April 19, 2001 are not required to obtain an endorsement to their Washington State license. However, all dental hygienists licensed after April 19, 2001 must obtain an endorsement to provide school based oral health services.
Dental Assistant:	A dental assistant (solely for the purpose of this WAC) may apply sealants and fluoride varnish under the general supervision of a Washington State licensed dentist. Dental assistants employed by a Washington State licensed dentist for 200 hours before April 19, 2001 are not required to obtain an endorsement from the state but may voluntarily do so. Dental assistants employed by a Washington State licensed dentist for 200 hours after April 19, 2001 must obtain an endorsement to provide school-based oral health services.
On-site Coordinator:	An on-site coordinator can ensure the most efficient use of time with minimal disruption to the school.
Administration:	Scheduling, handling equipment and supplies, and billing can be handled by administrative support staff.
Contractor:	A sealant and/or fluoride varnish program may be implemented through a contract with community providers. The same standards must be followed.

SEALANT APPLICATION

To provide the highest quality sealants, provider teams applying sealants should use a four-handed technique. Newly developed teams can place sealants on 10-15 children in a school day. Experienced teams may be able to place sealants on 15-18 children per day. See Step 8 for a standardized protocol for sealant application technique.

TRAINING FOR ALL STAFF

Infection Control/Medical Records

Providers must comply with Occupational Safety and Health Act (OSHA) and Washington Industrial Safety and Health Act (WISHA) requirements regarding infection control as outlined in the Dental Quality Assurance Commission of the Dental Practice Act (WAC 246-817-601 through 246-817-630) and Chapter 70.02 RCW (Revised Code of Washington) for Medical Records. Providers must comply with Health Insurance Portability and Accountability Act (HIPPA), federal regulations concerning management of patient records. Licensed personnel must have a valid copy of their practice license and documentation of CPR certification. This documentation of staff licenses, WISHA training, confidentiality training and immunization records can be kept in a central location with written personnel policies. Licensed personnel must post their practice license in a conspicuous location at their place of work (RCW 18.32.190, 18.29.060).

Record Keeping

Providers must develop forms for recording data. Each member of a school-based team must be able to record all necessary data accurately. The uniformity of data collected is imperative for valid data analysis. Perform a "mock" clinic to assure that all staff members are familiar with all data collection forms and procedures.

Use and Maintenance of Equipment

Providers must be fully trained on the use and maintenance of the portable dental equipment. Read all instruction and repair manuals. Develop maintenance schedules and follow them. Keep the telephone numbers of manufacturers easily accessible in case problems arise. Manufacturers can be very supportive with providing technical assistance to repair equipment over the telephone. If provider or the manufacturer cannot correct the problem, a local dental equipment supplier may be able to help. Programs make a variety of arrangements for transporting equipment, ranging from staff using their own vehicles to having the agency personnel use agency owned vans.

STAFF SPECIFIC TRAINING

Dentist: If a dentist is part of a program ensure that community based training has been provided. Dentists who understand and are familiar with the screening criteria will be able to screen children quickly. To calibrate examiners review all written criteria for tooth selection and assessment. The videotape entitled, "Assessment of Children for Community Based Sealant Programs," Washington State Department of Health can be used as a guide for training in assessment, screening and selection of children in school based programs.

Dental Hygienist: Dental hygienists who are familiar with the screening criteria will be able to screen children quickly. To calibrate hygienists review all written criteria for tooth selection and assessment. The videotape entitled, "Assessment of Children for Community Based Sealant Programs", Washington State Department of Health can be used as a guide for training in assessment, screening and selection of children in school based programs.
Assure that providers can place quality sealants. Training in the application of the selected sealant materials must be done. For new sealant programs, dental hygiene schools or pediatric dentists may be good resources for staff training. Staff will benefit from reviewing and training in four-handed dentistry. This will increase the efficiency of the program. The observation of an experienced provider team applying sealants can be used as a training exercise.

Dental Assistants: Dental assistants must be prepared for the role they will play in the school-based program. If a dentist has previously assessed the children, assistants may apply sealants and/or fluoride varnish. Assure they can place quality sealants. If dental assistants are assisting hygienists or other assistants, their role may be to organize a system of maintaining and storing supplies, assuring and implementing infection control and processing paperwork (consent forms, dental records, and letters to parents).

Contractors: When a local health jurisdiction has chosen to use a contractor to implement the program, a Request for Proposal (RFP) or a contract for services may be requested from interested providers such as dentists, hygienists, or dental clinics. The quality assurance tool in these guidelines can be used for contract development. Contracts must be on file in the Local Health Jurisdiction and accessible to the State of Washington Department of Health. To assure the quality of the program, contractors must follow all policies, protocols and procedures. Unscheduled visits to school sites should be conducted at least twice during the year. New contractors should be reviewed more frequently, which includes a chart review of at least 10 randomly selected charts. Additionally, proof of the following

required information should be maintained by contractors:

- Written Program, Policies, Procedures and Protocols
- Written Personnel policies
- Credentialling of licensed staff
- Training plan
- Trade name and batch number of sealant and/or fluoride varnish material and application protocol
- Demonstration of capability to provide required state data
- Financial agreement
- Staff turnover rates
- Demonstration of reliable quality equipment
- Demonstration of capability of adhering to quality assurance guidelines
- Written plan to accomplish the goals set by the local health jurisdiction
- References

STEP 4

PROCURE EQUIPMENT AND SUPPLIES

Creating an effective portable dental environment requires attention to supplies, materials and infection control. Equipment must be easily transportable and must operate effectively and safely when set up. Adequate supplies must be transported and appropriate infection control maintained. Portable dental equipment folds up and packs into carrying cases for lightweight transport. The exact equipment will depend upon the type and size of the program, the number and types of providers, the ages and special needs of the patients, and the methods used for sealant or fluoride varnish application.

SEALANT PROGRAM
PORTABLE EQUIPMENT COMPONENTS

The portable equipment needed for a sealant program includes a dental unit, air compressor, patient chair, light, operator stools, fans, ultrasonic cleaner, autoclave, and visible light curing light units (if using light-cured sealants).

Dental Units The unit must contain highspeed evacuation and an air/water syringe with a self-contained water source. Low volume vacuums in most of the portable units are not sufficient to maintain a dry field. Optional equipment may include low volume vacuum and high- and low-speed handpiece attachments. Additional air-dryer attachments can be ordered with some equipment to minimize moisture that can develop in the air lines. Vacuum content bottles can be ordered in larger sizes to decrease the number of times they must be emptied during a working day. Large programs, or programs that wish to include restorative services, may want dental units with high- and low-speed attachments as well as high- and low-volume vacuum systems. Some types of portable dental units cannot operate handpieces and vacuum simultaneously.

Compressors Dry, oil-free air is essential for the application of sealants. Select an oil-less compressor considering weight, cost, horsepower, and the size of the air storage chamber. Compressors with small air storage chambers are lighter and smaller but less durable than larger ones. Oil-less compressors are noisy. Large compressors run less frequently so there is less noise. Extra long hoses (25 foot) can be used. This allows compressors to be located away from the sealant placement area.

Patient Chairs Choose a patient chair that is durable, lightweight, folds easily, holds a person of average weight, is adjustable in height and back tilt, and has a carrying case. Use caution when seating children since a source of accidents has been children taking a seat on the end of the patient chair. Use the patient chair with the end unfolded or place a student desk chair underneath the end of the chair to discourage children from sitting on it.

Light High-intensity lights are preferred. Consider the cost, weight, ability to adjust, and ease of bulb replacement.

Operator and Assistant Chairs Chairs with an adjustable seat and back height will be most comfortable for sealant providers. Chairs with a wide base are less likely to tip. Operators, in school settings, have reported more accidents using the stools with wheels, probably due to the smaller wheelbase. Small stools or chairs purchased from office suppliers are less expensive than chairs designed specifically for portable dental environments.

Fans Room temperatures and working environments in schools are variable. Fans are important for comfort and to extend the working time of autocure sealant. Box-style fans can be used if these problems are encountered.

Curing Lights Use visible light curing units with an audible tone to indicate curing time. These units can break and lose their effectiveness even when the light remains visible. A radiometer should be used ROUTINELY to measure effectiveness of light.

STERILIZATION EQUIPMENT

Ultrasonic Cleaner Clean all instruments prior to sterilization. The use of an ultrasonic cleaner decreases the likelihood of personal injury.

Autoclave OSHA and WISHA infection control requirements must be followed. Size and width are the most important consideration in selecting a sterilizer. If instruments are autoclaved at the sealant site, a lightweight sterilizer is critical. If instruments are sterilized at a different location, more instruments will be required. Steam, dry heat or chemical vapor sterilizers are available. Steam sterilizers that have six-minute cycles compensating for their small chamber size are available. Autoclave (steam/chemical vapor) **MUST** be tested with a biological indicator **each week** during use. Resterilize instruments if not used within a month. Maintain a written log of sterilizer tests.

Disinfectant Disinfecting towelettes, such as Discide, are a convenient type of surface disinfectant. Many of the disinfectant solutions can be easily used for surface disinfection with a spray bottle and in the used instrument tubs to disinfect (if you are not using disposable instruments).

SUPPLIES

Isolation Aids **Maintaining a dry tooth is vital for sealant retention.** A four-handed technique can aid in maintaining a dry field by retracting cheeks or tongue and using high-volume vacuum. To improve evacuation, place the evacuator tip as close and as horizontal to the surface of the tooth as possible. Maintain vacuuming while drying the tooth. During placement and curing or setting of the sealant, keep the high

vacuum away from the tooth surface to avoid removing the sealant material before it has hardened.

- **Garmer clamps/cotton roll holders.** The use of garmer clamps is essential when not using a four-handed technique. Order an equal number of adult and junior sizes.

- **Other isolation aids:** Dri-angles, dry tips, cotton rolls, disposable cotton roll holders, and/or disposable mouth props may be used to assure proper isolation.

Mirrors

The number of mirrors needed will depend upon the size of the sealant program and sterilization methods. Disposable mirrors can be used for the assessment.

Explorers

Explorers are not routinely required to assess teeth for sealant placement. They can be used to apply sealant to the pits and fissures and to evaluate sealant retention. The dentist or hygienist may also request an explorer to identify teeth with clear sealants. Order enough explorers based upon the size of the sealant program and the sterilization requirements.

Sealant Placement Instruments

Explorers, dycal instruments, and perio probes can be used to place sealants and result in the thinnest of dental sealants. Carrier systems for dispensing and placing sealant directly to the teeth must be purchased in sufficient quantity to allow for sterilization between students. Choice of placement instrument can also depend upon operator preference and the brand of sealant material.

Sealant Etching Materials

Quik pics, cotton balls, or brushes are adequate for applying etch. Quik pics are popular and easy to use.

Sealant Material

Visible light cured sealant or autocuring sealant materials are recommended. Some evidence indicates that autocuring sealants result in slightly better long-term retention rates. Light cured sealant allows a clinician more variety in working time that may be helpful to maintain a dry field. Ultraviolet light cured sealant material is not recommended!

FLUORIDE VARNISH PROGRAM SUPPLIES

Equipment Portable dental chairs may be used for a fluoride varnish program but are not necessary. Inexpensive penlights or small Maglights are good choices.

Fluoride Varnish Most studies demonstrating effectiveness use a varnish containing 5% sodium fluoride as the active ingredient. Unit doses are available with an applicator brush included. Disposable applicators such as Bendabrushes are recommended for the application of the fluoride varnish.

Mirrors and Explorers Disposable mirrors are recommended for the assessment and fluoride varnish application. This will eliminate the need for sterilization. The number of mirrors needed depends upon the size of the program and sterilization requirements. Explorers are not routinely required during the fluoride application but may be needed for further assessment of a white spot or carious lesion. Disposable explorers will eliminate the need for sterilization. Order explorers depending upon the size of the program and sterilization requirements.

A. Dental Sealant Program Recommended Supply List

- ❑ Air-water syringe tips (disposable)
- ❑ Bib clips
- ❑ Bib
- ❑ Eyewear (for provider and patients)
- ❑ Gloves
- ❑ Gowns (laundry service/disposable)
- ❑ Hand soap
- ❑ Hand wipes
- ❑ Head rest chair cover
- ❑ Plastic sleeves for air/water syringe, vacuum and hoses
- ❑ Curing light handle covers
- ❑ Curing light
- ❑ Curing light tip covers
- ❑ Surface covers (plastic roll)
- ❑ Autoclave/Sterilizer bags
- ❑ Autoclave/Sterilizer cleaner
- ❑ Autoclave/Sterilizer Spore test kits and service
- ❑ Autoclave/Sterilizer indicator tape
- ❑ Surface Disinfectant
- ❑ Distilled water
- ❑ Gauze squares
- ❑ Chemical disinfectant
- ❑ Refillable spray bottles
- ❑ Paper towels
- ❑ Trashliners
- ❑ Ultrasonic cleaner solution
- ❑ Vacu-Cleaner
- ❑ Tubs (Rubbermaid type) for contaminated instruments
- ❑ Cotton roll holders/Isolators
- ❑ Cotton rolls
- ❑ DriAids, Dry Tips, Dry Angles
- ❑ Etching Liquid
- ❑ Evacuator tips
- ❑ Explorers
- ❑ Mirrors
- ❑ Sealant material (Autocure/Light cure)
- ❑ Etch applicator (brush, quick tip cotton pellet)
- ❑ Disposable mouth props
- ❑ Pencils, Stickers (Incentives)
- ❑ Heavy duty extension cords
- ❑ Power strips
- ❑ Tool kit for equipment repairs (allen wrench, duct tape)
- ❑ Cooler for sealant material storage
- ❑ Office supplies (stapler, paper clips, tape, pens, extra forms, etc,)
- ❑ Electrical plug strip
- ❑ Plug converter
- ❑ Table covers
- ❑ Clock with second hand
- ❑ Radio/music
- ❑ Tubs (Rubbermaid type) for transporting supplies
- ❑ Sandwich bags for toothbrushes

B. Fluoride Varnish Program Recommended Supply List

❑ Gloves ❑ Hand wipes or waterless hand cleaner ❑ Plastic sleeves for light ❑ Tray covers ❑ Eyewear (for provider and patients) ❑ Chemical disinfectant towelettes ❑ Paper towels ❑ Trashliners ❑ Autoclave/Sterilizer bags ❑ Autoclave/Sterilizer cleaner ❑ Autoclave/Sterilizer Spore test kits and service ❑ Autoclave/Sterilizer indicator tape ❑ Distilled water ❑ Refillable spray bottles ❑ Ultrasonic cleaner solution ❑ Tubs (Rubbermaid type) for contaminated instruments	❑ 5% Sodium Fluoride Varnish ❑ Dappen dish or paper pad (if not using unit dose package) ❑ Applicator (if not using unit dose package) ❑ Penlights, Maglight or other light source ❑ Explorers ❑ Mirrors ❑ Toothbrushes ❑ Stickers (Incentives) ❑ 2 X 2 gauze ❑ Office supplies (stapler, paper clips, tape, pens, extra forms, etc, ❑ Tubs (Rubbermaid type) for transporting supplies ❑ Batteries if using Maglights

C. 2002 Estimated Retail Portable Dental Equipment Costs

Unit	2295.00
Patient Chair	1295.00
Light	695.00
Compressor	1095.00
Operator Stool	495.00
Assistant Stool	495.00
Steam Sterilizer **	3352.00
Ultrasonic Cleaner	350.00
Total Equipment Cost	$10,072.00

** Portable steam sterilizers are available for $ 985.00 as an alternative to the large sterilizer listed above.

STEP 5

DEVELOP POLICIES, PROCEDURES, AND DATA COLLECTION FORMS

A school-based sealant and/or fluoride varnish program must have a written set of **policies, procedures, and protocols** established as well as a sound method of collecting data. These should reflect the local health jurisdiction standards and any legal parameters for such things as dental records, consent forms, billing procedures, and the use of volunteers. Each community, particularly each school district, is quite autonomous regarding procedures in schools. Review the policies, procedures, and protocols annually. Keep them updated and review them when appropriate. Decide what data to collect as you plan the program since good program evaluation will depend on the initial planning process. Assure that providers are trained in the use of data forms so consistent information will be collected. Consult with individuals trained in statistical analysis and Medicaid billing before program implementation to assure that the appropriate data are recorded in the most useful way. LHJs holding MCH (Maternal and Child Health) contracts with the Washington State Department of Health must follow contract reporting requirements. If the program is grant funded, make certain any grant report requirements can be met.

Students' records are legal records and must follow RCW Chapter 70.02 for Medical Records rules.

Develop forms reflecting the specific needs of the community and program. Students' records are legal records and must follow RCW Chapter 70.02 for Medical Records rules. An agency legal review of pertinent forms should be done to assure that the program is operating within the legal parameters.

PROGRAM FORMS

Student records Student patient records must be immediately available for use when the student is receiving care. When not in use, records are kept in a secure area. Perform a record review for accuracy and completeness at the end of each school year or at another appropriate time. Include a place on the record to collect demographic information that will allow for patient identification and for gender and race designations. Include other pertinent forms, such as patient consent. **Providing preventive services requires informed consent**. Make certain that consent forms are complete including parent/guardian signatures. For improved consent form return rates, send letters in languages appropriate for the population targeted. Collect a medical history on each patient,

with date and signature of consenting parent/guardian. Follow up documented compromising medical conditions with parent/guardian or other health care provider. Identify records of patients with compromising conditions. Train each provider to review medical histories and sign after review. After the sealants or fluoride have been applied, complete the records making sure they are signed/dated by both the examiner and provider. Document the assessment clearly in the initial assessment section of the patient record. A treatment plan based on the assessment should be clearly written on the patient record. Other comments such as behavior of the child should also be complete and written clearly. (See Step 7 Tips for Success)

Billing information

Collect all pertinent information so that accurate billing can be done. Needed billing information may vary among different insurance or reimbursement programs. Consider the billing requirements for private insurance and Medicaid when developing the form.

Collection of Assessment Data

Data collection methods vary depending on program size, resources available, and years in operation. Collect data carefully for accurate recording and reporting. Conduct oral health assessments using the Washington State Smile Survey format. Record and date all findings. Data may be hand-tabulated or entered directly into a computer program using software such as EPI-INFO (CDC free computer program), ACCESS or Excel.

There are two kinds of data collection: **quantitative and qualitative**.

When collecting **quantitative** data, focus on the following areas: consent rates, participation rates, oral health status, dental treatment referral rates, and follow-up status of referred children. Collect the following to assist in program evaluation:

* number of schools participating in sealant program,
* school selection criteria (rate of Free/Reduced lunch participants),
* numbers of children screened,
* numbers of children receiving sealants,
* numbers of teeth sealed, sealant retention rates (after one year),
* numbers of children receiving fluoride varnish applications,
* numbers of applications per child.

When using **qualitative** methods to collect data, interviews, surveys, focus groups, and group discussions can assist in gaining useful information from schools, communities, parents, students, staff or other participants in the sealant and/or fluoride varnish program. Phone calls to key informants can also be helpful in finding out how the program was received in your community.

Since sealant and/or fluoride varnish programs are complex and involve many details, problems can be avoided by using checklists to operate a program effectively. These lists may include school contacts, program activities, forms review, supply/equipment inventory, and other information. They provide a quick, easy way to monitor programs.

STEP 6

SCHEDULE SCHOOLS/SITES

Support of school personnel

Before scheduling a school-based sealant and/or fluoride varnish program for the first time, it is important to meet with the school principal and staff to discuss the program and to establish cooperation. The school staff would include the school nurse, secretary, teachers, and parent volunteers. Since the program will be competing with other "worthwhile" programs for time and space, it is essential to establish an overall philosophy of the importance of providing a preventive program at their school. At this meeting, it is a good idea to provide the school personnel with educational materials and show videotapes about sealant and/or fluoride varnish programs.

The location and length of the initial contact will depend upon the how much prior experience the school personnel have had with sealant and/or fluoride varnish programs and your relationship with them. If the school has had a program previously and you have established a solid relationship, the initial contact may be accomplished by telephone.

Document your interactions

Document all information or decisions made during the contacts with the principal or other staff members. To avoid potential confusion, send a follow-up letter to the principal or support members summarizing key points (dates and times, room locations, etc.).

- **Initial Contact** Document the names of the school personnel, date contacted and the responsibilities of all the people who will be involved in the program.

- **School Hours** School operating hours vary. Record school specific information such as recess, lunch times, and any other special activities that may influence the ability of the school-based program to operate efficiently. Find out if there are any blocked times when students are not available such as Math or Reading sessions. Check on "out of classroom schedule" to determine where the students will be (music, P.E., art, etc.).

- **Dates for Sealants and/or Fluoride Varnish Program** Agree and document the dates for the sealant and/or fluoride varnish program. Assure that all pertinent school personnel agree on the scheduled dates. Document times and dates for classroom presentations and application of the sealant and/or fluoride varnish.

- **Date Consent Forms Will Be Collected** Agree and document the dates that consent forms will be distributed and collected. Confirm these dates with the classroom teachers so they can support and encourage children to meet the deadline. Collect forms far enough in advance to prepare student records, review health histories, and conduct a follow-up. Remember, consent forms and dental records are confidential and should be handled accordingly.

- **Enrollment by Grade and Classroom** Obtain class lists of all classes involved in the program. Use enrollment lists to check the return of consent forms for accuracy and participation in the program.

- **Room or Space where Program Will Operate** Document the room or area where the sealant and/or fluoride varnish program will operate. Communicate this information to program staff so they know where to set up the equipment.

Teacher's enthusiasm and parental consent are critical for a successful program.

Sealant and/or fluoride varnish programs are difficult to implement successfully unless school personnel are cooperative. The teacher's enthusiasm is critical and very important since they can motivate students to return consent forms. Obtaining parental consent is also a critical component in the operation of an effective sealant and/or fluoride varnish program. The use of rewards such as pencils, erasers, or stickers can enhance the rate of return. Try to think of an idea to celebrate the success of every classroom that returns 100% of consent forms such as providing supplies for a popcorn party for the classroom.

Scheduling Dates

To estimate the number of days required to complete the program, consider that most sealant targeted populations will average approximately 60 per cent participation or positive consent. Newly established programs can probably apply sealants for 10 to 15 children per team each school day. Efficiently managed or experienced teams can probably see 15 to 18 students. School personnel can provide the number of students enrolled in eligible grades. After the first year of the program, consider the previous year's participation to help estimate the time that will be needed in each school.

Fluoride varnish programs can see approximately 60-75 students per day. Additionally, a subsequent visit to the school 3-6 months later to provide a second fluoride varnish will be needed.

Availability of space for efficient operation of program

Look at the physical space where the program will operate. Picture your portable equipment set up in this area. Consider what adjustments the program or the school may need to make. The space should be approximately 10 feet by 14 feet per operatory, have adequate electrical outlets and voltage, have good lighting, have access to water, be well-ventilated, and be located on the ground floor for accessibility. Auditorium stages, gymnasium corners, large hallways, locker rooms, and vacant classrooms are the usual locations for programs.

REMIND SCHOOL STAFF MEMBERS PRIOR TO PLACEMENT

Send a confirmation of when the equipment will arrive, the area in which the equipment will be placed, and the time the staff will set up the equipment. Ask for copies of class lists of those grades involved in the program. Verify that there are no activities, such as assemblies, field trips, achievement tests, plays, etc., scheduled for the days the sealant program will operate. Confirm with school personnel that permission has been granted to retrieve students from classrooms.

Evaluations conducted on local and national programs have shown the following:

- Incentives (such as stickers, pencils, balloons, etc.) to students had the greatest effect on increasing participation.
- Sixth graders were, by far, the poorest participators in sealant programs.
- Informational brochures attached to consent forms had a slight effect on increasing participation
- An informational fact sheet for teachers did not increase participation.
- Schools completed in the first half of the school year tended to have higher participation rates.
- Teachers' attitudes about the program greatly affected participation.
- Phone calls to parents of non-participators with a follow-up mailing of a second form greatly improved participation.
- A greater proportion of high-risk children participate when ALL students return a form (positive or negative).

STEP 7

PREPARE FOR IMPLEMENTATION

The efficiency of the program is highly dependent upon the preparation prior to the arrival of the staff at the school. Attention to the preparation details, outlined in Step 6, will make the implementation process much smoother.

The efficiency of the program is highly dependent upon the preparation prior to the arrival of the staff at the school. Attention to the preparation details, outlined in Step 6, will make the implementation process much smoother. With careful planning, the school personnel will be well aware that the program is scheduled, will understand how it will operate in the school, and will understand their role in the program. Consent forms will have all been collected and dental records prepared prior to this time. Training for personnel will have been completed.

LOGISTICS

Arrive at the school early to allow enough time to set up equipment. Prepare to call children for sealant placement or fluoride varnish application. All equipment set-up and breakdown, sterilization, instrument tray preparation, record keeping and paperwork should occur before or after school hours so that the six-hour school day can be used exclusively for patient treatment.

Emergency and Hazard Preparedness

Staff members should be familiar with both school and portable work-site emergency procedures before beginning work at any site. Accident and injury report forms should be available on site. An appropriate list of emergency telephone numbers should be kept with these forms. The on-site emergency supplies should be kept in a central location known to all staff.

Each portable work site should have access to a fire extinguisher. Check the building and determine the location of the fire extinguisher. Each member of the oral health team should be aware of the school site fire escape plan. These exit plans can be found in a prominent place--usually in the hallway.

Hazardous chemicals must be appropriately labeled and stored, according to manufacturer's directions and OSHA/WISHA guidelines. Train personnel in the use and storage of hazardous chemicals. Have instruction in emergency procedures in case of injury or inappropriate exposure to these chemicals. Keep an emergency procedure guide on-site, along with the Material Safety Data Sheets (MSDS).

Organize Equipment and Supplies

Pack the equipment and supplies so they can be unpacked and transformed into dental operatories quickly. Create a dental treatment area and a sterilization area. Locate electrical outlets and determine the best location for equipment. Request a table from school personnel for the sterilization area and supplies.

Reserve an area for extra supplies, a back-up air compressor, and empty equipment bags and containers. Keep these located away from the treatment area but accessible if extra supplies/equipment are needed. Carry a sufficient amount of supplies for one week of operation. Select a team member to be responsible for stocking and maintaining supplies. Pre-loaded trays should contain all the supplies necessary to complete work on a child. This tray can be wrapped in a headrest cover to maintain sterility.

Strategically locate the supplies around the patient chair and unit so everything is within easy reach of the provider and assistant. Storage containers that are used to transport supplies can double as tables. When using a four-handed technique, the containers behind the assistant hold prepared patient trays, hand wipes, toothbrushes, foil wraps for the dental lights, disposable sunglasses for eye protection, plastic sandwich bags for the toothbrushes, and extra supplies that may be needed as the day progresses. A storage container by the operator holds gloves, masks, and hand wipes. A container is placed on the floor so used instruments can be deposited as patients are completed.

Keep the sterilization area close to the treatment area. Have disinfectant and containers with rinse water, autoclave bags, towels, and gloves available. Reduce the compressor equipment noise during operation as much as possible. Use the padded carrying case to muffle the noise of the compressor once it is connected electrically. A long extension cord can be used so that the compressor can be moved further away from treatment area.

While the staff is preparing the equipment, see if any additional consent forms were returned to the school. If there are forms, review the health histories and prepare a student's dental record.

Screen and Evaluate for Sealants/Fluoride Varnish

Patient evaluations or assessments are completed in a variety of ways. In some programs, the assessments are completed days or weeks in advance of the program so program administrators know how many children need sealants and/or fluoride varnish. Other programs do the evaluations and placement or application during one school visit. The second approach offers the most cost-efficient way to operate. The following example tells how one efficiently operated program completes the dental evaluations.

- Ten minutes after school starts, the first child is seated in the chair for evaluation. To accomplish this, a program staff or volunteer goes to the first classroom shortly after school begins, explains to the students and teachers how the program will operate. All the children in the class who returned a positive consent form are called by name. The students, 5 - 7 students at a time, are escorted to the evaluation area where each child's

record is distributed to them. (Some schools may have reading or math programs where children cannot be accessed. When setting dates with the school, make sure to ask about blocked times.)

- The children line up and the dentist or hygienist assesses the children at the rate of 45 to 50 children per hour. The dentist or hygienist addresses each child by name to make sure they are recording assessment/evaluation results on the correct dental record. A headrest cover is placed on the chair (paper towel squares are an excellent, cost effective substitute). During the assessment, the dentist or hygienist calls aloud the results, including which teeth need sealants and/or a fluoride varnish application. Teeth that are decayed, missing, or filled can be recorded on the dental record. The patient name and all demographic information are pre-recorded on the dental record. The information recorded during the assessment includes:

  1) assessment of whether a sealant is needed on each posterior tooth,
  2) assessment for fluoride varnish application,
  3) the evaluation date, and
  4) Washington State Smile Survey information if required by the LHJ.

- After the assessment, the child returns to class or moves to another chair/operatory to have sealants placed or fluoride varnish applied.

- The dentist or hygienist deposits contaminated instruments into holding containers and throws gloves into a trash receptacle. If two containers are used to deposit the soiled instruments, the explorers (if used) and mirrors can be separated. This saves time in sorting during the sterilization process, and minimizes the chance of injury from exposure to sharp explorers.

- The staff or volunteer who accompanied the children from their classroom gives each one a reward (i.e., sticker) for participating in the program and maintains "crowd control". Meanwhile, if a second provider team is available, they begin to apply sealants or fluoride varnish to those children assessed.

- As soon as assessments/evaluations are completed, the dentist or hygienist signs each record. The records are organized by classroom and the records of those children who do not need sealants and/or fluoride varnish are sorted out.

Scheduling students for preventive services

Teamwork is important. Organization and systematic patient flow contribute greatly to program efficiency. Each team can have one child in the chair and one child waiting.

For Sealants:

- While waiting, the child is given a toothbrush to brush his/her teeth. This gives the waiting child an opportunity to watch the procedure and minimize any anxiety. Organize the charts so that as soon as the child's sealants are completed he/she can return to the classroom and send another child to the area.

For Fluoride Varnish:

- A child is seated in the dental chair or, for very young children, may be positioned knee to knee. For this, have the child sit in one provider's lap facing that person. Lower the child backward placing the child's head in the lap of the second provider. Some programs may choose to brush the child's teeth prior to the varnish application. Other programs may choose not to.

For both procedures:

- As a child is dismissed, the instruments are deposited into a container and the disposable items are thrown into a trash receptacle. The unit is disinfected, a new instrument tray is prepared, and the next child sits down in the chair. Meanwhile, the dental record and the parent letter/referral are completed. The child is sent back to class with his/her letter and another child is requested to come to the area.

- Check each student's name carefully to assure that the dental record matches the child being treated.

Refer students for Further Treatment

- **A referral system should be in place to assist families in obtaining needed dental treatment for their children.** Determine the referral sources available in the community. Prepare a list of resources by neighborhood. Community health clinics, pediatric dentistry training programs, hospital dental programs, dental schools, local United Way agencies, and private practitioners are all options for referrals.

- **Send a letter home with each child who participates in the program**. The letter informs the parents of treatment provided and whether any obvious dental decay was detected. Use it as a health promotion tool by explaining the importance of regular dental check-ups and provide a telephone number to call if the parent has any questions.

- **Mail a letter home to those students who have an immediate treatment need**. To ensure that follow-up treatment is sought, a telephone call to the parents may be useful. Seek the assistance of the school nurse. Several existing sealant programs report untreated disease rates in the range of 28 to 34 percent. When a child has urgent dental needs (i.e., abscess or swelling) notify school personnel whenever possible and arrange telephone calls to parents or guardians. The goal is to assist families in finding appropriate dental care for their child.

- **Provide the school nurse with a list of children with obvious dental treatment needs**. Often, they have contact with parents regarding other health concerns and can include the need for dental care in their discussion with them. Be sure the school nurse and school secretary has a list of local referral sources.

- **Develop a system to track the success of the referral component**. This may be done when sealant retention checks on third grade children are scheduled as part of the quality assurance program or when returning for additional fluoride varnish applications. Children who were referred for treatment can be assessed to see whether they received the necessary treatment within the year. The impact of the program on the children's access to dental care can be evaluated. The success of various strategies for follow-up can be determined.

TIPS FOR SUCCESS

The following suggestions can help your program to be more successful.

Sealant Presentations

Formal presentations by a dental hygienist or dental assistant describing sealants, encouraging participation, and giving anticipatory guidance help in the success of sealant programs. Consent forms are distributed during the presentation. These presentations can occur well in advance (2 - 4 weeks) of the program implementation to allow adequate time to collect consent forms and prepare dental records. Educational videos that describe sealants can be used during the presentations. An excellent video to consider for this purpose is entitled "Seal in a Smile". It is available from the Columbus Health Department, Community Dental Programs, 240 Parsons Ave., Columbus, Ohio, 43215.

The presentations can be scheduled during the initial contact with the school. Details, such as the location within the school and manner in which the presentation will be conducted and consent forms distributed, should be documented in the school folder. This will assist the program staff person to know what has been agreed upon. If no time is scheduled for presentations, have a video available for the classroom teachers to show at their own convenience. An incentive to return the consent form can be introduced whether a program staff person or the classroom teacher is providing information to students about the program. Some anticipatory guidance is important to alleviate any anxiety students may have in having sealants applied. For some children, this will be their first dental experience.

If program staff does the presentation, encourage classroom teachers to be present for the session. Teachers who understand dental sealants become supporters of the program. The presentation can be done by grade or by classroom. Smaller groups are more effective than larger groups.

Information to Parents

An informational brochure or fact sheet attached to the consent form can help in educating parents about sealants and fluorides. In focus groups, some parents indicated they would like more information about sealants and fluoride before they made the decision to have their child participate. Including the information on the consent form may make it too cumbersome for those parents who do not need additional information or for those who have problems reading lengthy forms. Informational brochures answering commonly asked questions about sealants and fluorides in conjunction with the consent forms had a modest effect on increasing participation. The cost factor of the brochures must be considered when planning your program.

Telephoning Parents

To enhance participation of the children who fail to return a consent form, telephoning parents and mailing a second consent form with a stamped self-addressed envelope works well. Volunteers may be used to make the calls since they can take a considerable amount of time. They are more successful when done in the evenings. Securing the telephone numbers must be arranged with the schools. Some school policies will not allow this practice. The cost of this effort must also be considered.

Consent Forms in Foreign Languages

The need for translations will vary depending upon your community. In areas with large numbers of families who speak English as a second language, a consent form in their primary language may enhance participation.

Forms on colored paper

If colored paper is used, the forms will be more identifiable in stacks of other classroom papers. Some sealant and/or fluoride varnish programs resend consent forms home with each child who has not returned a form when all others are collected. These can be placed in the teacher's mailboxes for redistribution.

Review Forms before going to school

The following tasks should be completed before the program operates in the school:

- Review consents for parent/guardian signatures. Those without signatures could be sent back home with the students or mailed so signatures can be obtained.

- Review all health histories. Follow -up with parents/guardians or physicians when indicated. Program planners must make the decision regarding whether or not to use a health history. Some program planners feel a health history is not necessary because of the non-invasive nature of the sealant placement procedure and fluoride varnish application. Others feel that certain medical conditions may indicate the need for special considerations such as prophylactic antibiotics. Still others feel that a history is advisable, for legal reasons. Follow the standards in your professional community.

- Prepare a dental record for each child and attach the consent form. Arrange the records by room number so the children can be easily located once you are on site.

STEP 8

PROVIDE THE PREVENTIVE SERVICE

Sealant Placement

Sealant retention is directly related to the application technique. Each step must be carefully executed. The application technique will vary depending upon the staffing of the programs and the type of sealant material used. Follow manufacture's recommendations.

Clean Tooth--*Brush It Off*

The purpose of cleaning the tooth prior to sealant placement is to thoroughly remove all the plaque or debris from the tooth surfaces. Different cleaning methods have been advocated such as brushing with water, air polishing, hydrogen peroxide, and many others. Research shows that retention rates are similar regardless of cleaning methods. Therefore, any method that removes the plaque or debris is acceptable. The easiest cleaning method is to brush the tooth surfaces with plain water. After the surfaces are cleaned and thoroughly rinsed, dry the teeth and check for any remaining debris.

Isolate and Dry--*Keep it Dry*

Isolation is the most critical aspect of sealant application. Salivary contamination of a tooth during or after acid etching will have a detrimental effect on retention. Studies show that even a one-second saliva contamination decreases retention. The use of Garmer clamps (cotton roll holders) is one of the most successful methods for isolation. The clamps hold the cotton rolls in place and keep the tongue out of the way. Cotton rolls, dry angles, or gauze should be placed over the parotid duct. Some operators like to place a dry angle between the cotton roll holder and the lingual surface of the mandibular teeth to create an additional barrier for the tongue. The saliva ejector and/or high volume evacuator should also be used.

After the teeth are isolated, they must be thoroughly dried before etching.

Acid Etching--*Make it Frosty*

The purpose of acid etching the surface is to increase the surface area by forming micropores in the subsurface of the enamel. These micropores increase the mechanical retention of the sealant. Using cotton pellets, brushes or any manufacture applicator, place the etchant 2-mm past the margin to be sealed. The etched surface that is not covered by the sealant will remineralize within twenty-four hours.

Follow the manufactures recommendation for etch time. Studies show that sealant bond strength to enamel are comparable for etch times from 15 to 60 seconds. Additionally,

primary teeth that are etched for the same time as permanent teeth show similar retention rates. The operator can determine if the etch time was appropriate by observing if the surface has a frosty appearance when dried.

Rinse and Dry--*Don't Rush It*

Rinse the etched surface for a sufficient amount of time (10-15 seconds) to remove all organic particles from the micropores. From this point forward, until the sealant has hardened, salivary contamination will have a detrimental affect on sealant retention. If there is any salivary contamination of the etched surface before the sealant has hardened, re-etch for 10-15 seconds and rinse.

To ensure the surface remains dry after rinsing, replace the water soaked isolation items and Garmer clamp. To prevent delay and possible saliva contamination have the cotton rolls placed in a second Garmer clamp at the beginning of the appointment. Occasionally, water can be removed from the cotton rolls with a high-speed evacuator and dry isolation items can be placed over the wet items.

Before drying the surface, it is important to check the air syringe for moisture in the line by blowing air on the bib or mirror. Dry thoroughly for 15 seconds and evaluate the surface for a frosty, white appearance. If the surface does not have the appropriate appearance, re-etch for 10-15 seconds and rinse.

Place Sealant --*In The Groove, Let It Flow*

Since the application step will vary according to the product selected, the operator should follow the manufacturer's instructions. Applicators will also vary according to the manufacturer's recommendation and operator's preference. If more than one tooth in a quadrant is being sealed, the most posterior tooth should be treated first since maintaining dryness is more difficult in the back of the mouth. To avoid bubbles, don't shake the containers immediately prior to placement.

The patient's head should be positioned so the occlusal plane is parallel to the floor. Depending on the consistency, apply the sealant to the most mesial surface and allow the sealant to flow distally. If the sealant material is very viscous, the operator may need to spread the sealant material through the pit with an explorer or instrument to achieve desired coverage. For maximum caries protection, all susceptible pits and fissures should be sealed with a thin layer of sealant. Be sure not to overfill fossa.

When self-cure sealant is used, one drop of liquid catalyst and base are mixed together in a dappen dish. One drop of each is usually enough to seal four teeth or one quadrant. Working and setting time will vary according to temperature and product. Normal working time is 30-45 seconds and setting time is 60-90 seconds. Check to see if the sealant is hardening in the dappen dish before examining the too

Light-cure sealants do not require mixing. After the sealant is applied to the surface, it is important to allow enough time (5-10 seconds) for the material to flow into the grooves before curing. Hold the light as close as possible without touching the surface and cure for a

minimum of 20 seconds. Under curing can affect the retention rate while no harm can be done with over curing. To cover the entire surface, a larger 12-mm curing light tip is recommended.

Evaluate Sealant--*Don't Miss The Pits*

Isolation of the teeth should be maintained until the sealant is checked by sight and touch for complete coverage of all pits and fissures. Avoiding undo force, check retention by attempting to dislodge the sealant with an explorer. Additional sealant material may be applied directly to the surface if no salivary contamination has occurred. Otherwise, re-etch for 10 seconds before reapplying the sealant.

Check the contacts with floss and evaluate the gingival area for excess sealant. Excess can be removed with a scaler or flame shaped polishing bur.

The patient should be advised that it is normal to have slight temporary occlusal interference. Depending on the filler content, the sealant should abrade into proper occlusion within three or four days. If necessary, the occlusion can be adjusted with a polishing bur.

To prevent a bad taste, after the sealant has hardened, the air inhibited greasy layers on top of the sealant should be removed with gauze. Sealants should be re-evaluated at recalls. The need for re-application will be the highest within the first six months.

TROUBLESHOOTING

Common problems and possible causes found during sealant placement.

Sealant Application	
Common Problems	**Possible Causes**
Sealant will not polyermize (harden).	• Salivary contamination • Etch brush was inadvertently used to place the sealant
Sealant sets up slowly.	• Sealant material is past the expiration date • Sealant was not at room temperature
Sealant comes off when checking with an explorer.	• Salivary contamination • Improper curing time • Improper cleaning of the tooth • Improper etching time • Incomplete rinsing after etching
Bubbles are present in sealant surface.	• Brushing or dabbing sealant on tooth rather than allowing sealant to flow into grooves • Excessive mixing or stirring of sealant before placement
Excessive occlusal interference is present.	• Sealant is placed too thick • Incomplete trimming after sealant is placed

Fluoride Varnish Placement

Fluoride varnish is used in school-based programs for its safety, efficacy and ease of application in young children. Fluoride varnishes deliver a higher concentration of fluoride than traditionally applied fluoride gels and are therefore applied in smaller amounts. Care should be taken to ensure that the amount applied is within a safe dose for the age and weight of the child. The following are the steps for fluoride varnish application.

- **Position** the child in the dental chair OR (depending upon the age of the child) in the "knee to knee" posture and have the caretaker/assistant lower the child's head into your lap.

- **Massage** the fluoride tube to fully assure that the fluoride is evenly distributed within the varnish medium. Usually 1 – 2 pea-sized drops (about 0.3 ml) of varnish for children with 1 – 8 teeth is sufficient and 2 – 3 drops (about 0.5 ml) for older children. If using pre-measured fluoride varnish, stir the varnish thoroughly before applying the varnish to the teeth. The provider may dispense the varnish on the backside of the glove hand that is not being used for varnish application. This eliminates the "reaching time".

- **Brush** the child's teeth to remove obvious food and heavy plaque.

- **Dry** the teeth in a small area with 2X2 gauze sponges. With the applicator brush, quickly spread a thin coating of fluoride varnish preferably using a pattern that covers all tooth surfaces. In young children, ability to access the tooth surfaces will vary. If the child is reluctant, attempt to apply varnish to as many teeth as possible with special attention to the maxillary and mandibular anteriors, which are most susceptible to Early Childhood Caries.

- **Contact** with saliva will harden the varnish. The child may drink or eat soft foods immediately after the application. Crunchy foods should be avoided for 4 hours.

- **Advise** child/caretaker that the varnish is slightly yellow and that it may be visible for a few hours. Request that the child/caretaker not resume brushing until the next day in order to keep the varnish coating in contact with teeth for as long as possible.

Fluoride varnish must be applied multiple times in a year to be effective. A child with white spot lesions or active caries should definitely receive multiple applications.

STEP 9

EVALUATE THE PROCESS AND OUTCOMES

The effectiveness of sealants and fluorides are well documented in the literature.

The effectiveness of sealants and fluorides are well documented in the literature. Program administrators should concentrate evaluation efforts on the quality of the sealants placed, ability to apply varnish multiple times, acceptability of the program and cost effectiveness of the program. Applying quality preventive strategies in a cost efficient manner is important in supporting the operation of a school-based program. Program evaluation is a critical component of any program.

SEALANT RETENTION

The quality of the sealants being applied can be measured in either of two ways. First, a sample of children who receive sealants can be re-evaluated within a few days of sealant application to ensure that the sealants are still intact and adequately cover surfaces. This form of evaluation is particularly effective for new providers so feedback concerning the quality of the sealants is immediate and any problem detected can be quickly corrected. The number of children evaluated and the regularity of the checks will vary among programs depending upon the results of previous long-term and short-term retention checks, staff turnover, and program protocols. Secondly, retention of sealants must occur in the next school year.

One Year Retention Rates

Long-term retention checks must occur in the second year of the program and beyond, and should be evaluated on as many children as possible. Lost sealants and partially lost sealants reflect errors in tooth selection, equipment failure or operator technique. One year retention rates of properly applied sealants should exceed 85 percent. Children in each school who had sealants placed the previous year should be reexamined. The retention checks involve third graders who had sealants placed the previous year.

Advance preparation is necessary for retention checks. Using the third grade class lists, determine which of the children sealed in second grade continue to be enrolled in the school. Mark their current room number on the dental record before returning to the school for the

checks. Sealant programs should differentiate between totally lost sealants and partially lost sealants by indicating retention rates of each. Have evaluation criteria that clearly define lost sealants and partially lost sealants so that they are recorded properly.

Consider the time it will take to apply lost sealants in your planning. Each program has the responsibility to set the policy regarding parental consent for reexamining and or resealing students. Some programs allow for reapplication of sealants using the original parental consent. Other programs may require new consent forms for lost sealant application. Programs **MUST** reseal teeth if sealants have not been retained. Decide if sealants will be placed for children who were absent for screenings, placement in second grade or whose teeth were not erupted. Keep new and replaced sealants separate in your data so you have accurate retention rates.

FLUORIDE VARNISH PROGRAM

Fluorides protect the smooth surfaces of teeth.

Fluoride varnish is a professionally applied topical fluoride introduced in the United States in 1991. Recent evidence indicates that fluoride varnish is useful in reducing dental caries. Yearly multiple applications of fluoride varnish must be applied to be effective. As part of the program evaluation, the number of applications for each student seen should be recorded. For those students not receiving multiple applications, determine the effectiveness of this strategy for the targeted population.

Prepare for the second visit by obtaining new class lists. Compare the names of students now enrolled with those receiving a first fluoride varnish application. Arrange dates with school and prepare lists of children to be seen. During the second application, note if any obvious dental decay recorded during the first application has not been treated. Notify parents or guardians again.

EVALUATION FOR BOTH PROGRAMS

Keep accurate records. Collect necessary data carefully for reporting. Look at your original program plan and evaluate whether you have reached your objectives. Evaluate your program in the following areas. By continually evaluating the program, changes can be made which will strengthen future year's activities.

- population served is at high risk for dental caries
- community participation and support of program is present for continuation
- provider is adequately trained and follows guidelines
- appropriate equipment and necessary supplies are available
- policy, and procedure protocols are updated
- adequate data are collected
- referral rates are monitored
- community referral resources are developed
- records are properly documented
- sealant retention rates at one year are within acceptable limits
- fluoride varnish applications occur multiple times yearly
- participation rates are high
- program is cost effective

WEBSITES

- http://www.communityvoices.org/main.asp
- http://www.cdc.gov
- http://www.thecommunityguide.org/Guide/oralhealth_fl.html
- http://www.guideline.gov/index.asp
- http://www.cdc.gov/mmwr/mmwr_rr.html
- http://www.ada.org/prof/pubs/jada/index.asp
- http://www.k12.wa.us/ (Select Child Nutrition under OSPI Programs for Free/Reduced Lunch percentages)
- http://www.health.gov/healthypeople/
- http://www.k12.wa.us/dataadmin/
- http://www.brightfutures.org
- http://www.DOH.WA.GOV/CFH/oralhealth
- http://www.cms.gov/hipaa/hipaa2/default.asp
- http://www.pc.maricopa.edu/departments/dental/ecc
- http://www.mchb.hrsa.gov/
- http://www.surgeongeneral.gov/library/oralhealth/
- http://www.mchoralhealth.org/
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